

Amendments to the Claims:

Claims 15, 22, 24 and 31 to 33 are amended as set forth hereinafter.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1 to 14 (Cancelled).

15. (Currently Amended) A method for operating an internal combustion engine including an engine for a motor vehicle, the method comprising the steps of:

5 directing fuel into a combustion chamber of said engine and combusting said fuel therein;

drawing a conclusion as to deposits in said combustion chamber from at least monitoring the effects of a cylinder equalization during operation of said engine; and,

10 thereafter initiating measures in a targeted manner for cleansing said combustion chamber while said engine continues to be in operation.

16. (Previously Presented) The method of claim 15, comprising at least one of the following further steps of:

bringing about a knocking combustion to cleanse said combustion chamber; and,

5 adding a cleansing or detergent liquid to combustion air
inducted by said engine.

17. (Previously Presented) The method of claim 16, wherein said
cleansing liquid is water.

18. (Previously Presented) The method of claim 16, wherein said
measures are conducted for a predetermined time duration.

19. (Previously Presented) The method of claim 16, wherein said
measures for cleansing said combustion chamber are carried out so
long until no deposits are detected in said combustion chamber.

20. (Previously Presented) The method of claim 19, wherein said
measures for cleansing said combustion chamber are carried out
only so long as no damage to said engine is to be expected.

21. (Previously Presented) The method of claim 15, wherein said
measures for cleansing said combustion chamber are carried out as
a precaution at predetermined time intervals for a predetermined
time duration.

22. (Currently Amended) ~~The method of claim 15 in combination~~
~~with a direct-injecting engine, wherein said method comprises the~~
~~further steps of:~~ A method for operating an internal combustion
engine including an engine for a motor vehicle, the method
5 comprising the steps of:

directing fuel into a combustion chamber of said engine and

combusting said fuel therein;

drawing a conclusion as to deposits in said combustion
chamber from at least monitoring the effects of a cylinder
10 equalization;

thereafter initiating measures in a targeted manner for
cleansing said combustion chamber;

directly injecting fuel into the combustion chambers of said
engine with the aid of injection valves in a first operating mode
15 during ~~an induction~~ a compression phase or in a second operating
mode during ~~a compression~~ an induction phase;

continuously carrying out a misfire detection;

when detecting misfires during operation of said engine in
said first operating mode, then switching over into the second
20 operating mode; and,

when misfires also occur in the second operating mode,
drawing a conclusion as to a general fault and starting
additional diagnostic methods for narrowing down the fault
causes.

23. (Previously Presented) The method of claim 15, wherein said
engine is a diesel engine.

24. (Currently Amended) A method for operating a
direct-injecting internal combustion engine including an internal
combustion engine of a motor vehicle, the method comprising the
steps of:

5 directly injecting fuel into the combustion chambers of
said engine with the aid of injection valves in a first operating

mode during ~~an induction~~ a compression phase or in a second operating mode during ~~a compression~~ an induction phase;

continuously carrying out at least one of a cylinder equalization with monitoring of effects and a misfire detection;

drawing a conclusion as to the coking of the injection valves when a fault signal of said monitoring of effects is present or, when detecting a misfire during operation of said engine in said first operating mode, switching over to said second operating mode; and,

when no misfire occurs in said second operating mode, drawing a conclusion as to deposits on the nozzles of said injection valves or a coking of said injection valves.

25. (Previously Presented) The method of claim 24, comprising at least one of the following further steps of:

bringing about a knocking combustion to cleanse said combustion chamber; and,

adding a cleansing or detergent liquid to combustion air inducted by said engine.

26. (Previously Presented) The method of claim 25, wherein said cleansing liquid is water.

27. (Previously Presented) The method of claim 25, wherein said measures are conducted for a predetermined time duration.

28. (Previously Presented) The method of claim 25, wherein said measures for cleansing said combustion chamber are carried out so

long until no deposits are detected in said combustion chamber.

29. (Previously Presented) The method of claim 28, wherein said measures for cleansing said combustion chamber are carried out only so long as no damage to said engine is to be expected.

30. (Previously Presented) The method of claim 24, wherein said measures for cleansing said combustion chamber are carried out as a precaution at predetermined time intervals for a predetermined time duration.

31. (Currently Amended) A computer program comprising:

program-code means for carrying out a method for operating an internal combustion engine when executed on a computer, the method including the steps of:

5 directing fuel into a combustion chamber of said engine and combusting said fuel therein;

drawing a conclusion as to deposits in said combustion chamber from at least monitoring the effects of a cylinder equalization during operation of said engine; and,

10 thereafter initiating measures in a targeted manner for cleansing said combustion chamber while said engine continues to be in operation.

32. (Currently Amended) A control apparatus for operating an internal combustion engine including an internal combustion engine of a motor vehicle, the control apparatus comprising:

means for controlling the supply of fuel into a combustion

5 chamber of said engine and combusting said fuel therein;

means for drawing a conclusion as to deposits in said combustion chamber from at least monitoring the effects of a cylinder equalization during operation of said engine; and,

10 means for initiating measures in a targeted manner for cleansing said combustion chamber while said engine continues to be in operation.

33. (Currently Amended) An internal combustion engine including an engine for a motor vehicle, the internal combustion engine comprising:

5 a cylinder and a piston conjointly defining a combustion chamber;

means for metering fuel to said combustion chamber; and,

10 a control apparatus functioning to: control the metering of fuel into a combustion chamber of said engine and combusting said fuel therein; draw a conclusion as to deposits in said combustion chamber from at least monitoring the effects of a cylinder equalization during operation of said engine; and, thereafter initiate measures in a targeted manner for cleansing said combustion chamber while said engine continues to be in operation.